

**ABSTRACT OF THE DISCLOSURE**

A method for mapping higher brain function comprises an fMRI mapping step S1 to map a brain function of the subject TP by fMRI, a head portion structural image acquisition step  
5 S3 to acquire a head portion structural image IMGs by an MRI system in a state that a headgear HC having a marker is mounted on the head portion of the subject TP, a three-dimensional image combining step S4 to create a three-dimensionally combined image IMGfs by combining the head  
10 portion structural image IMGs and the brain functional image IMGf obtained by the fMRI mapping step S1, an optical probe mounting step S5 to specify positions on the headgear HC where optical probes PR1, PR2 are mounted based on the three-dimensionally combined image IMGfs and to mount the  
15 optical probes PR1, PR2 at the specified positions and an NIRS measuring step S6 to conduct the NIRS by a NIRS method in a state that the headgear HC loaded with the optical probes PR1, PR2 is mounted on the head portion of the subject TP.